

## Attachment V

## 510(k) Summary K132 975

**1. General Information**

Submitter: AllMed Systems Inc.  
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Contact Person Peter Allen

Date Prepared 17<sup>th</sup> September 2013

**2. Names**

Device Name Sphinx Jr Laser

Common Name laser surgical instrument

Classification Name 79GEX

CFR Reference 21 CFR 878.4810 Laser surgical instrument for use in  
general, plastic and dermatological surgery

**3. Predicate Device**

Sphinx Family of lasers, and Lumenis - Versapulse

**4. Product Description**

The Sphinx Jr. system is a surgical laser system operating at a wavelength of 2.1 micron. The purpose of the laser is the ablation, coagulation, dissection and resection of soft tissue. The laser is designed for open surgery and surgical applications in aqueous media and non aqueous medium. The laser power is delivered via standard silica laser fibers. The distal tip is guided by a handpiece endoscopic surgical instrument or similar approved device

It consists of:

- Laser Console with Internal Computer
- Control Panel and Display
- Operating Software
- Fiber port
- Footswitch

## **5. Indications for Use**

The Sphinx Jr laser system is intended for use in surgical procedures using open, laparoscopic and endoscopic incision, excision, resection, ablation, vaporization, coagulation and hemostasis of soft tissue in use in medical specialties including: Urology, Urinary Lithotripsy, Gastroenterology, Arthroscopy, Discetomy Pulmonary, Gynecology, ENT, Dermatology, Plastic Surgery and General Surgery.

### Urology

Open and endoscopic surgery (incision, excision, resection, ablation, vaporization, coagulation and hemostasis) including:

- Urethral Strictures
- Bladder Neck Incisions (BNI)
- Ablation and resection of Bladder Tumors, Urethral Tumors and Ureteral Tumors.
- Ablation of Benign Prostatic Hypertrophy (BHP),
- Transurethral incision of the prostate (TUIP)
- Holmium Laser Resection of the Prostate (HoLRP)
- Holmium Laser Enucleation of the Prostate (HoLEP)
- Holmium laser Ablation of the Prostate (HoLAP)
- Condylomas
- Lesions of external genitalia

#### **Lithotripsy and Percutaneous Urinary Lithotripsy**

- Endoscopic fragmentation of urethral, ureteral, bladder and renal calculi including cystine, calcium oxalate, monohydrate and calcium oxalate dehydrate stones.
- Endoscopic fragmentation of kidney calculi
- Treatment of distal impacted fragments of steinstrasse when guide wire cannot be passed.

### Gastroenterology

Open and endoscopic gastroenterology surgery (incision, excision, resection, ablation, vaporization, coagulation and hemostasis ) including:

- Appendectomy
- Polyps
- Biopsy

- Gall Bladder calculi
- Biliary/Bile duct calculi
- Ulcers
- Gastric ulcers
- Duodenal ulcers
- Non Bleeding Ulcers
- Pancreatitis
- Hemorrhoids
- Cholecystectomy
- Benign and Malignant Neoplasm
- Angiodysplasia
- Colorectal cancer
- Telangiectasias
- Telangiectasias of the Osler-Weber-Renu disease
- Vascular Malformation
- Gastritis
- Esophagitis
- Esophageal ulcers
- Varices
- Colitis
- Mallory-Weiss tear
- Gastric Erosions

#### Arthroscopy

Arthroscopy/Orthopedic surgery (excision, ablation and coagulation of soft and cartilaginous tissue) in small and large joints of the body, excluding the spine but including:

- Ligament and tendon Release
- Contouring and sculpting of articular surfaces
- Capsulectomy in the Knee
- Chondroplasty in the Knee
- Debridement of inflamed synovial tissue
- Chondromalacia Ablation
- Chondromalacia and tears
- Plica Removal
- Menisectomy
- Loose Body Debridement
- Lateral retinacular release

Ablation of soft, cartilaginous and bony tissue in Minimal Invasive Spinal Surgery including

- Percutaneous Laser Disc Decompression/Discectomy of the L4-5 and L5-S1 lumbar discs, including Foraminoplasty
- Percutaneous Cervical Disc Decompression/Discectomy
- Percutaneous Thoracic Disc Decompression/Discectomy

#### Thoracic and Pulmonary

Open and endoscopic surgery (incision, excision, resection, ablation, vaporization, coagulation and hemostasis of soft tissue)

### Gynecology

Open and laparoscopic gynecological surgery (incision, excision, resection, ablation, vaporization, coagulation and hemostasis) of soft tissue

### ENT

Endoscopic endonasal surgery (incision, excision, resection, ablation, vaporization, coagulation and hemostasis of soft tissue and cartilage) including:

- Endonasal/sinus Surgery
- Partial turbinectomy
- Polypectomy
- Dacryocystorhinostomy
- Frontal Sinusotomy
- Ethmoidectomy
- Maxillary antrostomy
- Functional endoscopic sinus surgery

### Dermatology and Plastic Surgery

Incision, excision, resection, ablation, vaporization, coagulation and hemostasis of soft, mucosal, fatty and cartilaginous tissue, in therapeutic plastic, dermatologic and aesthetic surgical procedures including:

- Basal Cell Carcinomas
- Lesions of skin and subcutaneous tissue
- Skin tags
- Plantar warts
- Lesions of skin and subcutaneous tissue
- Port Wine Stains
- Papillomas

### General Surgery

Open, laparoscopic and endoscopic surgery (incision, excision, resection, ablation, vaporization, coagulation and hemostasis) including:

- Appendectomy
- Skin incision
- Excision of external and internal lesions
- Complete or partial resection of internal organs, tumors and lesions
- Biopsy

## **Safety and Effectiveness of the Sphinx Jr.**

### **Rationale for Substantial Equivalence**

The Sphinx Jr systems with fiber optic delivery devices share the same intended use, indications for use, similar design features and functional features and therefore are substantially equivalent to the Sphinx Family of Lasers K033437 and Versapulse K011703.

### **Non Clinical Testing**

All necessary Software and EMC testing was conducted on the proposed Sphinx Jr to support a determination of safety to the predicate devices.

### **Performance**

Since the specification and performance of the Sphinx laser system and the predicate devices are the same, it is suggested that preclinical performance data is not required

### **Conclusion**

The Sphinx Jr Systems with fiber optic delivery devices was found to be safe and effective and therefore substantially equivalent to the predicate surgical laser systems and delivery devices.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Center - WO66-G609  
Silver Spring, MD 20993-002

March 18, 2014

AllMed Systems, Inc.  
Peter N. Allen  
9232 Klemetson Drive  
Pleasanton, California 94588

Re: K132975

Trade/Device Name: Sphinx Jr.  
Regulation Number: 21 CFR 878.4810  
Regulation Name: Laser surgical instrument for use in general and  
plastic surgery and in dermatology  
Regulatory Class: Class II  
Product Code: GEX  
Dated: February 10, 2014  
Received: February 25, 2014

Dear Mr. Allen:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA).

You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you; however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set

forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

<http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

<http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

**Felipe Aguel**

for Binita Ashar, MD, MBA, FACS  
Acting Director  
Division of Surgical Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known)  
K132975

Device Name  
Sphinx Jr Laser System

### Indications for Use (Describe)

The Sphinx Jr. laser system is intended for use in surgical procedures using open, laparoscopic and endoscopic incision, excision, resection, ablation, vaporization, coagulation and hemostasis of soft and hard tissue in use in medical specialties including:

Urology, Urinary Lithotripsy, Gastroenterology, Arthroscopy, Discectomy, Pulmonary, Gynecology, ENT, Dermatology, Plastic Surgery and General Surgery

#### Urology

Open and endoscopic surgery (incision, excision, resection, ablation, vaporization, coagulation and hemostasis) including:  
Urethral Strictures

Bladder Neck Incisions

Ablation and resection of Bladder Tumors, Urethral Tumors and Ureteral Tumors.

Ablation of Benign Prostatic Hypertrophy (BHP)

Resection of the Prostate

Condylomas

Lesions of external genitalia

Lithotripsy and Percutaneous Urinary Lithotripsy

Endoscopic fragmentation of urethral, ureteral, bladder and renal calculi

Endoscopic fragmentation of kidney calculi

Treatment of stricture when guide wire cannot be passed

#### Gastroenterology

Open and laparoscopic gynecological surgery (incision, excision, resection, ablation, vaporization, coagulation and hemostasis) including

Appendectomy

Polyps

Biopsy

Gall Bladder calculi

Biliary/Bile duct calculi

Ulcers

Gastric ulcers

Duodenal ulcers

Pancreatitis

Hemorrhoids

Cholecystectomy

Benign and Malignant Neoplasm

Angiodysplasia



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Colorectal cancer  
Telangiectasias  
Vascular Malformation  
Gastritis  
Esophagitis

#### Arthroscopy

Arthroscopy/Orthopedic surgery (excision, ablation and coagulation of soft and cartilaginous tissue) excluding the spine but including:

Ligament and tendon Release  
Contouring and sculpting of articular surfaces  
Capsulectomy in the Knee  
Chondroplasty in the Knee  
Debridement of inflamed synovial tissue  
Chondromalacia Ablation  
Chondromalacia and tears  
Plica Removal  
Meniscectomy  
Loose Body Debridement

Ablation of soft, cartilaginous and bony tissue in Minimal Invasive Spinal Surgery including

Percutaneous Laser Disc Decompression/Discectomy  
Foraminoplasty

#### Pulmonary

Open and endoscopic surgery (incision, excision, resection, ablation, vaporization, coagulation and hemostasis)

#### Gynecology

Open and laparoscopic gynecological surgery (incision, excision, resection, ablation, vaporization, coagulation and hemostasis) including:

Outer female genitals  
Ablation of condilomata and genital warts  
Inner genitalia  
Endometrium ablation  
Treatment of Uterine polyps  
Treatment of endometriosis

#### ENT

Endoscopic endonasal surgery (incision, excision, resection, ablation, vaporization, coagulation and hemostasis of soft tissue) including:

Endonasal/sinus Surgery  
Partial turbinectomy  
Polypectomy  
Dacryocystorhinostomy  
Ethmoidectomy

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Dermatology and Plastic Surgery

Incision, excision, resection, ablation, vaporization, coagulation and hemostasis of soft, mucosal, fatty and cartilaginous tissue, in therapeutic plastic, dermatologic and aesthetic surgical procedures including:

Basal Cell Carcinomas

Lesions of skin and subcutaneous tissue

Skin tags

Plantar warts

Lesions of skin and subcutaneous tissue

General Surgery

Open laparoscopic and endoscopic surgery (incision, excision, resection, ablation, vaporization, coagulation and hemostasis) including:

Appendectomy

Skin incision

Excision of external and internal lesions

Complete or partial resection of internal organs, tumors and lesions

Biopsy

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Type of Use (Select one or both, as applicable)

☒ Prescription Use (Part 21 CFR 801 Subpart D)

☐ Over-The-Counter Use (21 CFR 801 Subpart C)

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FOR FDA USE ONLY

Concurrence of Center for Devices and Radiological Health (CDRH) (Signature)

Neil R Ogden -S

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